

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021972**Date Inspected:** 14-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 14

This QA Inspector randomly observed the following work in progress in the Bay 14:

FCAW welding of weld joint SEG3020AW-097 located on PCMK OBG 14W. Welder was identified as 045175. QC was identified as ABF CWI Ji Cai Fang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ABF QC Chen Kun (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QCA1. See photos below.

FCAW welding of weld joint SEG3013N-097, 102, 152, 155 located on PCMK OBG 13AW. Welder was identified as 203871. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zheng Zhi Wei (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA2.

FCAW welding of weld joints SEG3013Q-191, 194 located on PCMK OBG 13AW. Welder was identified as 067876. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA2.

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SMAW welding of weld joint SEG3013-012 located on PCMK OBG 13AW. Welder was identified as 066038. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2214-B-U2-FCM-1 as verbally identified by QCA2.

FCAW welding of weld joint SEG3013M-173 located on PCMK OBG 13AW. Welder was identified as 066421. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA2.

SMAW welding of weld joints SEG3013R-004, 005 located on PCMK OBG 13AW. Welder was identified as 033780. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2213-B-U2-FCM-1 as verbally identified by QCA2.

SMAW welding of weld joint SEG3013E-225 located on PCMK OBG 13AW. Welder was identified as 047864. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2213-B-U2-FCM-1 as verbally identified by QCA2.

SMAW welding of weld joints SEG3013J-006 located on PCMK OBG 13AW. Welder was identified as 067993. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2213-B-U2-FCM-1 as verbally identified by QCA2.

Also in Bay 14, in response to ZPMC request #08545 for magnetic particle testing (MT) inspection of the following:

This QA Inspector performed random visual testing (VT) and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member was identified as follows:

OBG Section 14W, DP3173-001. The weld designations reviewed were: 039~041, 058~061, 066~ 069, 074~077, 082~087, 094~097, 102~105, 110~113, 134, 135, 422, 424, 142~147, 168~170, 177~179, 185~190, 195, 198, 203~208, 225~228, 233~236. No apparent indications were observed.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

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**Reviewed By:** Riley, Ken

QA Reviewer